

Title (en)

HYDROELECTRIC POWER GENERATION DEVICE

Title (de)

VORRICHTUNG ZUR ERZEUGUNG VON HYDROELEKTRISCHER ENERGIE

Title (fr)

DISPOSITIF DE PRODUCTION D'ÉNERGIE HYDROÉLECTRIQUE

Publication

EP 3779178 A4 20211117 (EN)

Application

EP 19774533 A 20190214

Priority

- KR 20180034787 A 20180326
- KR 2019001790 W 20190214

Abstract (en)

[origin: EP3779178A1] The disclosure relates to a hydropower generator, and more particularly to a hydropower generator which has a compact and simple structure, efficiently generates electric energy by arranging multistage blade assemblies along a flow path of a fluid, and not only improves power generation efficiency but also is easily installed and dramatically lowers installation costs because the arrangement position and the number of blade assemblies are properly adjustable according to flow amount, flow rate, designed capacity and local conditions. The hydropower generator according to the disclosure includes: a driving shaft installed along a path through which a fluid flows; a plurality of blade assemblies installed along a lengthwise direction of the driving shaft; a spinning supporter connected to rotatably support the driving shaft; a power generator receiving a spinning force of the driving shaft and generating electricity; and a flow pipeline internally provided with the driving shaft along a lengthwise direction thereof and formed with a channel through which a fluid flows.

IPC 8 full level

F03B 13/08 (2006.01); **B23P 6/00** (2006.01); **F03B 3/12** (2006.01); **F03B 11/00** (2006.01); **F03B 11/06** (2006.01); **F03B 11/08** (2006.01);
F03B 13/00 (2006.01); **F03B 13/26** (2006.01); **F03B 17/06** (2006.01); **F16H 9/04** (2006.01)

CPC (source: EP KR RU US)

F03B 3/121 (2013.01 - EP KR RU); **F03B 3/128** (2013.01 - EP); **F03B 11/008** (2013.01 - KR); **F03B 11/06** (2013.01 - EP KR);
F03B 11/08 (2013.01 - EP KR); **F03B 13/00** (2013.01 - EP); **F03B 13/083** (2013.01 - KR RU US); **F03B 13/264** (2013.01 - EP);
F03B 17/061 (2013.01 - EP KR RU US); **F16H 9/04** (2013.01 - EP KR); **F03B 3/121** (2013.01 - US); **F05B 2210/404** (2013.01 - EP);
F05B 2220/20 (2013.01 - EP KR); **F05B 2220/32** (2013.01 - EP KR US); **F05B 2220/706** (2013.01 - KR US); **F05B 2240/40** (2013.01 - EP KR);
F05B 2240/93 (2013.01 - EP KR); **F05B 2250/15** (2013.01 - EP KR); **F05B 2250/311** (2013.01 - EP KR); **F05B 2260/4021** (2013.01 - EP KR);
F05B 2260/4031 (2013.01 - EP KR); **F05B 2260/5032** (2013.01 - EP KR); **F16H 9/04** (2013.01 - US); **Y02E 10/20** (2013.01 - EP KR);
Y02E 10/30 (2013.01 - EP)

Citation (search report)

- [A] WO 2017164091 A1 20170928 - KK BELLISION [JP]
- [A] CN 105673085 A 20160615 - UNIV JINAN
- [A] CN 106593748 A 20170426 - UNIV HOHAI
- [A] EP 3184806 A1 20170628 - OPENHYDRO IP LTD [IE]
- See also references of WO 2019190051A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3779178 A1 20210217; EP 3779178 A4 20211117; AU 2019241787 A1 20201119; AU 2019241787 B2 20220317; CA 3093898 A1 20191003;
CN 112074661 A 20201211; CN 112074661 B 20211224; JP 2021517944 A 20210729; JP 7142191 B2 20220927; KR 102050205 B1 20191128;
KR 20190112606 A 20191007; PH 12020551763 A1 20210712; RU 2753106 C1 20210811; US 11668273 B2 20230606;
US 2021017953 A1 20210121; WO 2019190051 A1 20191003

DOCDB simple family (application)

EP 19774533 A 20190214; AU 2019241787 A 20190214; CA 3093898 A 20190214; CN 201980030376 A 20190214; JP 2021502675 A 20190214;
KR 20180034787 A 20180326; KR 2019001790 W 20190214; PH 12020551763 A 20201022; RU 2020134243 A 20190214;
US 201917040288 A 20190214